

AMENDMENTS TO THE CLAIMS

The following list of claims supercedes all previously submitted lists of claims.

1-31. (Cancelled)

32. (currently amended) A method for maintaining a healthy bone structure, said method comprising administering to a patient without an osteopathy a medicament comprising a bone health promoting effective amount of 1-amino-3-(N,N-dimethylamino)-propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates.

33. (previously presented) A method as in claim 32, wherein the medicament is administered to a healthy patient.

34. (cancelled)

35. (previously presented) A method as in claim 32, wherein the medicament is administered to a human being or a vertebrate animal.

36. (previously presented) A method as in claim 32, wherein the medicament is administered to a human being at or above the age of 40 years.

37. (previously presented) A method as in claim 32, wherein the medicament is administered to a child.

38. (cancelled)
39. (currently amended) A method according to claim 32 ~~38~~, wherein the osteopathy is selected from the group comprising osteoporosis, Paget's disease, arthritis, periodontal osteopenia, adolescent scoliosis, fracture, disuse osteopenia, post-transplant osteopenia, hyperparathyroidism-associated, metabolic bone disease, osteopenia of prematurity, and ossification disorder, or a combination thereof.
40. (currently amended) A method for treatment of a patient who has ~~recently~~ undergone treatment with corticosteroids, said method comprising administering to said patient who has ~~recently~~ undergone treatment with corticosteroids a medicament comprising a bone-health promoting effective amount of 1-amino-3-(N,N-dimethylamino)-propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates.
41. (currently amended) A method for post-treatment of osteopathies wherein an anti-resorptive activity is not desired, said method comprising administering to a patient in need thereof a medicament containing a bone-health promoting effective amount of 1-amino-3-(N,N-dimethylamino)-propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates, wherein said amount is selected from the group consisting of: 0.1-1000 mg per oral administration, and 0.02-200 mg per parenteral administration.
42. (previously presented) A method for combating bone disease in a child, said method comprising administering to a child with a bone disease a medicament comprising a bone-

health promoting effective amount of 1-amino-3-(N,N-dimethylamino)-propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates.

43. (previously presented) A method according to claim 42, wherein the bone disease is selected from the group comprising osteoporosis, Paget's disease, arthritis, periodontal osteopenia, adolescent scoliosis, fracture, disuse osteopenia, post-transplant osteopenia, hyper-parathyroidism-associated osteopenia, drug-induced osteopenia, nutritional osteopenia, metabolic bone disease, osteopenia of prematurity and ossification disorder.
44. (currently amended) A method as in claim 42, wherein said amount is selected from the group consisting of: 0.1-1000 mg per oral administration, and 0.02-200 mg per parenteral administration after the administration of medicament to the patient the 1-amino-3-(N,N-dimethylamino)-propylidene-1,1-bisphosphonic acid, or any of its soluble salts or any of its hydrates are present at extracellular concentrations in a range of between 10^{-6} M and 10^{-10} M.
45. (currently amended) A method according to claim 44, wherein said amount is selected from the group consisting of: 12.5-75 mg per oral administration, and 2.5-15 mg per parenteral administration 1-amino-3-(N,N-dimethylamino)-propylidene-1,1-bisphosphonic acid, or any of its soluble salts or any of its hydrates, are present at extracellular concentrations in a range of between 10^{-7} M and 10^{-9} M.
46. (cancelled)

47. (withdrawn) A method for stimulation of those signaling cascades and reaction mechanisms mediating the action of 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, or any of its soluble salts or any of its hydrates, which can be blocked by Ca^{2+} -channel blockers, said method comprising administration of stimulating effective amount of a medicament comprising 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, or any of its soluble salts or any of its hydrates.
48. (withdrawn) A method according to claim 47, wherein the Ca^{2+} -channel blockers are selected from the group comprising nifedipine and verapamil.
49. (withdrawn) A method according to claim 47, wherein 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates, is administered in doses of 0.01 to 1000 mg/oral application.
50. (withdrawn) A method according to claim 49, wherein 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates, is administered in doses of 12.5 to 75 mg/oral application.
51. (withdrawn) A method according to claim 49, wherein 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates, is administered in doses of 0.02 to 200 mg/parenteral application.

52. (withdrawn) A method according to claim 51, wherein 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates, is administered in doses of 2.5 to 15 mg/parenteral application.
53. (withdrawn) A medicament for mobilization of Ca^{2+} -ions from IP_3 -sensitive stores, said method comprising administering a Ca^{2+} -ion mobilizing effective amount of a medicament comprising 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates.
54. (currently amended) ~~[[A]] The method of Claim 32 for prevention or treatment of a bone disorder, said medicament further comprising method comprising administering to a patient a medication comprising (a) a bone health promoting effective amount of 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates, and (b) at least one substance selected from the group consisting of calcium salts, calcium citrate, calcium carbonate, other amino-substituted bisphosphonates, pharmaceutically active fluorine-containing salts, vitamins of the D-Group and their metabolites, cholecalciferol, calcifediol, calcitriol, ergocalciferol, PTH, anabolic hormones, estrogens, substances with estrogenic activity on the bone, progestogens, androgens, growth hormones, peptides with growth hormone activity, selective modulators of the estrogenic receptor, and raloxifene.~~
55. (withdrawn) A method for screening the Ca^{2+} -channel blockers comprising the steps:
- treatment of cells having Ca^{2+} -channels with a putative Ca^{2+} -channel blocker;

- contacting the cells with 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates;
 - measuring a response as a result of the contacting step.
56. (withdrawn) A method for screening for functional analogues of 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates, comprising the steps:
- treatment of cells having Ca^{2+} -channels with Ca^{2+} -channel blockers;
 - contacting the cells with the putative functional analogue which, in the absence of any Ca^{2+} -channel blockers, is known to cause a Ca^{2+} -ion influx into the cells;
 - measuring a response as a result of the contacting step.
57. (withdrawn) A method for the selective modulation of osteoblasts and/or for the maintenance of a healthy bone structure and/or for the treatment of patients who have recently undergone treatment with corticosteroids, and/or for post-treatment of osteopathies where an anti-resorptive activity is not desired, and/or for the stimulation of those signaling cascades and reaction mechanisms mediating the action of 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates, which can be blocked by Ca^{2+} -channel blockers, and/or for the mobilization of Ca^{2+} -ions from IP_3 -sensitive stores, comprising:

administering 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates along or in combination with a pharmaceutical carrier to a patient, the 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates being administered in doses of 0.1 to 1000 mg/oral application or 0.02 to 200 mg/parenteral application.

58. (previously presented) The method of claim 42, wherein said medicament is administered in doses of 0.01 – 1000 mg per oral application.

59. (previously presented) The method of claim 58, wherein said medicament is administered in doses of 12.5 – 75 mg per oral application.

60. (new) A method for treatment of a bone disorder, said method comprising administering to a patient a medication comprising:

(a) a bone-health promoting effective amount of 1-amino-3-(N,N-dimethylamino) – propylidene-1,1-bisphosphonic acid, any of its soluble salts or any of its hydrates, and

(b) at least one substance selected from the group consisting of calcium salts, calcium citrate, calcium carbonate, other amino-substituted bisphosphonates, pharmaceutically active fluorine-containing salts, vitamins of the D-Group and their metabolites, cholecalciferol, calcifediol, calcitriol, ergocalciferol, PTH, anabolic hormones, estrogens, substances with estrogenic activity on the bone, progestogens, androgens, growth

hormones, peptides with growth hormone activity, selective modulators of the estrogenic receptor, and raloxifene.

61. (new) The method of claim 60, wherein said amount is selected from the group consisting of: 0.1-1000 mg per oral administration, and 0.02-200 mg per parenteral administration.
62. (new) A method according to claim 60, wherein the bone disorder is selected from the group comprising osteoporosis, Paget's disease, arthritis, periodontal osteopenia, adolescent scoliosis, fracture, disuse osteopenia, post-transplant osteopenia, hyper-parathyroidism-associated, metabolic bone disease, osteopenia of prematurity, and ossification disorder, or a combination thereof.